The "Weekly Petroleum Status Report" is published each Friday by the Energy Information Administration. The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday.

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office. Send order and payment to;

Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402

Order desk (202) 783-3238

Annual Subscription—Domestic--\$55.00/year
—Foreign --\$68.75/year

Single Copy —Domestic-\$2,75/copy —Foreign --\$3,45/copy

For questions on energy statistics or information on the availability of EIA publications, contact:

U.S. Department of Energy Energy Information Administration National Energy Information Center, E1-61 Forrestal Building Mail Stop 1F048 (202) 252-8800

The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation. It presents current statistics in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policy-makers, consumers, analysts, and State and local governments.

## Highlights

#### **Refinery Operations**

Crude oil inputs to refineries averaged 12.2 million barrels a day for the week ending December 3,1982. Refinery capacity utilization averaged 73.2 percent during the week. During the four weeks ending December 3, 1982, motor gasoline production averaged 6.2 million barrels a day, and distillate fuel oil production averaged 2.9 million barrels a day.

#### Stocks

On December 3, 1982, stocks of crude oil stood at 356.3 million barrels, which is about 3 percent below the level a year ago. Stocks of motor gasoline, at 225.8 million barrels, were about 9 percent below the level a year ago. Distillate fuel oil stocks stood at 184.4 million barrels, which is about 8 percent below the level a year ago. Stocks of residual fuel oil stood at 65.0 million barrels, which is 20 percent below the level a year ago.

#### **Imports**

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 4.5 million barrels a day for the four weeks ending December 3, 1982, about 12 percent below the average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 3.6 million barrels a day for the four-week period ending December 3, 1982.

#### **Products Supplied**

Total petroleum products supplied averaged 14.7 million barrels a day for the four-week period ending December 3, 1982, which is about 6 percent lower than during the comparable period last year. Motor gasoline was supplied at a rate of 6.5 million barrels a day, which is about 2 percent above the rate supplied a year ago. Distillate fuel oil was supplied at a rate of 2.3 million a day, which is about 22 percent below the rate a year ago.

#### **Crude Oil Price**

The estimated weighted average international price of crude oil as of December 8, 1982 remains at \$33.01 a barrel.

### **Spot Market Product Prices**

For the week ending December 3, 1982, the average spot market price of 98 octane gasoline on the Rotterdam market decreased \$2.63 to \$33.65 a barrel; the gasoil price decreased 20 cents to \$38.67 a barrel, and the price of residual fuel oil increased 7 cents to \$26.95 a barrel. On the New York market, the average spot price of 89 octane regular gasoline decreased 57 cents to \$35.76 a barrel; the price of No. 2 heating oil decreased \$1.99 to \$35.07 a barrel, and the residual fuel oil price decreased 75 cents to \$26.75 a barrel.

## Contents

U. S. Petroleum Balance Sheet
Refinery Operations U.S. Refinery Production by Product
Stocks of Crude Oil and Petroleum Products, U.S. Totals
Imports Imports of Crude Oil and Petroleum Products
Products Supplied Total Petroleum Products Supplied for Domestic Use
Prices World Crude Oil Prices
Weather Heating Degree-Days
Appendices:  A: EIA Weekly Data: Data Collection and Method of Estimation

	Four-Week / For Period		Percent	Daily	lative Averages	0
	12/03/82	12/03/81	Change	1982	Days 1981	Percent Change
Crude Oil Supply				<del></del>	<del></del>	<del></del>
	E8,683	8,586	1.1	E8,672	8,570	1.2
(1) Domestic Production* (2) Net Imports (Including SPR) <sup>2</sup> (3) Gross Imports (Excluding SPR) (4) SPR Imports (5) Exports (6) SPR Stocks Withdrawn (+) or Added (-) (7) Other Stocks Withdrawn (+) or Added (-) <sup>3</sup> (8) Used Directly and Losses (9) Unaccounted-for Crude	3,507	3,780	-7.2	3,259	4,188	-22.2
(3) Gross Imports (Excluding SPR)	3,570	3,788	-5.8	3,331	4,155	-19.8
(4) SPR Imports (5) Exports	181 E244	263 272	-10.2	167	263	
6) SPR Stocks Withdrawn (+) or Added (-)	-181	-257	-10.2	E239 -177	231 -343	3.6
6 SPR Stocks Withdrawn (+) or Added (-) 7 Other Stocks Withdrawn (+) or Added (-)	-78	-55		21	43	
8) Used Directly and Losses	E-59	-68		E-64	-62	
(9) Unaccounted-for Crude	-46	262		109	86	
10) Crude Oil Input to Refineries	11,826	12,248	-3.4	11,820	12,481	-5.3
Other Supply						
(11) NGL Production	E1,528	1,627	-6.1	E1,536	1,610	-4.6
12) Other Hydrocarbon Input 13) Crude Used Directly as Product	E59	52	11.7	E52	51	3.2
14) Processing Gain	E57 562	64 565	-0.6	E60 523	58	4.3
'15) Net Product Imports' .	961	1,270	-24.4	961	503 1,232	4.1 -22.0
16) Gross Product Imports <sup>4</sup>	1,541	1,696	-9.2	1,524	1,590	-4.1
17) Product Exports _	E580	426	36.1	£564	358	57.4
18) Product Stocks Withdrawn (+) or Added (-) <sup>5</sup>	-289	-161		260	77	,e-e-
19) Total Product Supplied for Domestic Use	14,702	15,665	-6.1	15,212	16,011	~5.0
Products Supplied						
(20) Motor Gasoline	6,492	6,395	1.5	6,547	6,580	-0.5
21) Naphtha-type Jet Fuel 22) Kerosene-type Jet Fuel	178 874	193 788	-7.8	206	200	3.1
23) Kerosene	135	156	10.9 -13.7	801 125	810	-1.1
24) Distillate Fuel Oil	2,280	2,904	-21.5	2,658	121 2,796	3.2 -4.9
25) Residual Fuel Oil	1,392	1,933	-28.0	1,681	2,074	-18.9
26) Other Oils	3,352	3,295	1.7	3,194	3,432	-6.9
27) Total Products Supplied	14,702	15,665	-6.1	15,212	16,011	-5.0
Petroleum Stocks		······································		<del></del>	Percent Ch	ange from
Millions of Barrels)	12/03/8	2 11	1/26/82	12/03/81	Previous Week	
Crude 011 (Exc}uding SPR) <sup>6</sup>	356.	3	D240 7	36E D	9.0	0.6
Motor Gasoline	225.	š	R348.7 R225.2	365.8 248.7	2.2 0.2	-2.6 -9.2
Naphtha-type Jet Fuel	5.		R5.8	6.8	-2.2	-16.5
Kerosene-type Jet Fuel	34.	6	R35.0	35.2	-1.2	-1.6
Kerosene	12.		R11.7	12.3	8.8	4.1
Distillate Fuel Oil Residual Fuel Oil	184.		R177.2	199.5	4.1	-7.6
	65. 110.		R59.9 R112.2	81.2 116.1	8.5 -1.2	-20.0 -4.5
Unfinished <sub>8</sub> 0ils Other Oils	E163.		E164.5	211.8	-0.7	-22.8
Total Stocks (Excluding SPR)	1,158,	g 91	,140.3	1,277.3	1.6	-9.3
Total Stocks (Excluding SPR) Crude Oil in SPR	290.		288.2	223.0		
Total Stocks (Including SPR)	1,448.		,428.5	1,500.3	0.6	30.0

R=EIA revision.

E=Estimate based on monthly data.

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5).

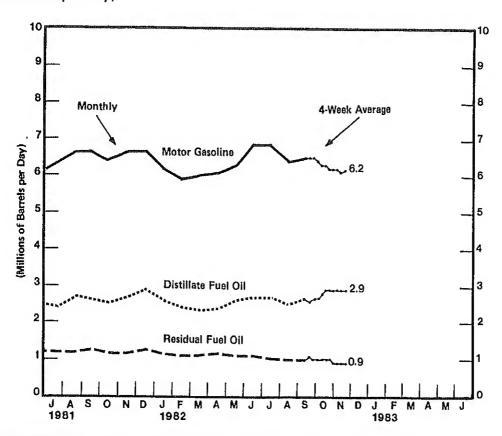
3 The December 1980 crude oil stocks level used in the calculation of the 1981 "Other Stocks Withdrawn or Added" is the 1981-basis crude oil stock level published in the 1991 "Petroleum Supply Annual" (380.2 million barrels). The difference between the 1980- and the 1981-basis crude oil stock levels is the inclusion of crude oil in transit from Alaska in the figures for January 1981 forward. The December 1980 crude oil stock level shown on page 6 is the 1980-basis figure published in the 1980 "Petroleum Statement, Annual" and is consistent with other 1980 figures shown.

<sup>4</sup> Includes unfinished oils and natural gas plant liquids for processing.
5 Includes an estimate of minor product stock change based on monthly data.
6 Includes crude oil in transit to refineries.
7 Includes stocks of finished motor gasoline and stocks of motor gasoline blending components.
8 Includes to stocks of all other oils such as switting gasoline setups and liquids (finished motor gasoline such as switting gasoline setups).

Included are stocks of all other oils such as aviation gasoline, natural gas liquids (including ethane), petrochemical feedstocks, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils. For the current two weeks, stocks of these minor products are estimated from monthly data. Sources:

<sup>1980:</sup> EIA, "Petroleum Statement. Annual (Final Summary)."
1981: EIA, "Petroleum Supply Annual,"
January-September 1982: EIA, "Petroleum Supply Monthly."
October 1, 1982-Current Week: Estimates based on EIA weekly data. Due to independent rounding, individual product detail may not add to total. The percentages shown are calculated using unrounded numbers.

## U.S. Refinery Production by Product (Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												
Motor Gasoline	7.0	6.9	6.5	6.3	6,3	6.6	6.4	6.4	6.4	6.1	6.5	6.6
Jet Fuel	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1,0	1.0	1.0
Kerosene	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0,1	0.1	0.1	0.1	0.2
Distillate Fuel	3.0	2.8	2.6	2.5	2.5	2.6	2.7	2.5	2.7	2.6	2.7	2.9
Residual Fuel	1.8	1.8	1.6	1.6	1.5	1.6	1.5	1.4	1.5	1.5	1,6	1.7
1981												
Motor Gasoline <sup>2</sup>	6.7	6,3	6.2	6.1	6.1	6.2	6.4	6.6	6.6	6.4	6.6	66
Jet Fuel	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0	6.6 0.9
Kerosene	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.1	0.9
Distillate Fuel <sup>2</sup>	3.0	2.8	2.5	2.4	2.5	2.5	2.4	2.7	2.6	2.5	2.7	2.9
Residual Fuel <sup>2</sup>	1.6	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.3	1,2	1.2	1,3
1982 <sup>1</sup>												
Motor Gasoline <sup>2</sup>	6.2	5.9	6.0	6.1	6.3	6.8	6.8	6.4	6.5			
Jet Fuel	0.9	1.0	1.1	1.0	0.9	0.9	1.0	1.0	1.0			
Kerosene	0.1	0,2	0.1	0.1	0.1	0,1	0.1	0.1	0.1			
Distillate Fuel <sup>2</sup>	2.6	2.4	2.3	2.4	2.6	2.7	2.7	2.5	2.7			
Residual Fuel <sup>2</sup>	1.2	1.1	1.1	1.2	1.1	1,1	1,0	1.0	1.0			
Average for Four-	Mook Da	riod End	ina									
1982 <sup>1</sup>	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
Motor Gasoline <sup>2</sup>	e E	e e	6.4	6.0	6.0	6.0		······································		6.0		
Jet Fuel	6.5	6.5	6.4	6.3	6.3	6.2	6.2	6.2	6.1	6.2		
Kerosene	1.0 0.1	1.0 0,2	1.0	1.0	1.0 0.2	1.0	1.0	1.0	1.0	1.0		
Distillate Fuel <sup>2</sup>	2.6	2.7	0.2	0.2		0.2	0.2	0.2	0.2	0.2		
Residual Fuel <sup>2</sup>	2.0 1.1	1.0	2.7 1.0	2.8 1.0	2.9 1.0	2.9 1.0	2,9 0.9	2.9 0.9	2.9 0.9	2.9 0.9		
ilesiduai Fuei	1.1	1.0	1.0	1.0	1.0	1.0	0.9	U.S	ບ.ອ	v.9		

<sup>1</sup> Production statistics represent not production (i.e., refinery output minus refinery input).
2 Production statistics for 1981 and 1982 should not be directly compared with those for prior years because, in January 1981, EIA modified its definitions for motor gesoline, distillate fuel oil, and residual fuel oil. See Appendix D for further explanation.

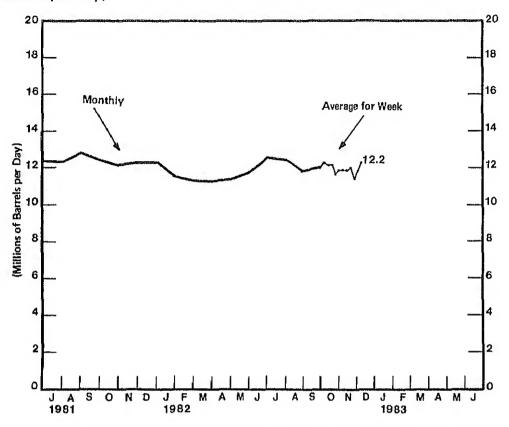
Source: e 1980: EIA, "Petroleum Statement, Annual (Final Summary),"

e 1981: EIA, "Petroleum Supply Annual."

e January—September 1982: EIA, "Petroleum Supply Monthly."

e October 1, 1982—Current Week: Four-week sverages based on EIA weekly data.

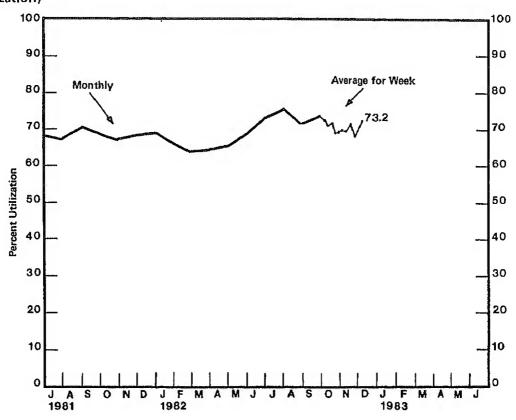
## Crude Oil Inputs to Refineries (Millions of Barrels per Day)



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	14.3	14.2	13.7	13.5	13.3	13.7	13.3	13.0	13.3	12.8	13.1	13.6
<b>19</b> 81	13.2	12.9	12.4	12.1	12.3	12.4	12.3	12.9	12.5	12.1	12.3	12.3
1982	11.6	11.3	11.3	11.4	11.8	12.5	12.4	11.9	12,1			
Average fo 1982	or Week En 10/1	ding: 10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
	12.3	12.1	12.1	11.6	11.8	11.8	11,8	12.0	R11.4	12.2		

R=ElA revision.
Source: • 1980: EIA, "Petroleum Statement, Annuat (Final Summary),"
• 1981: EIA, "Petroleum Supply Annual,"
• January-September 1982: EIA, "Patroleum Supply Monthly."
• October 1, 1982-Current Week: Estimates based on EIA weekly data.

## Refinery Capacity Utilization (Percent Utilization)



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	82.1	79.9	76.8	75.7	74.8	77.0	74.5	72.7	73.6	70.6	73.0	75.5
1981	72.5	70.8	67.7	65.7	67.2	68.1	67.4	70.6	68.4	67.0	68.2	69.2
1982	66.3	64.6	64.9	65.5	68.0	73.6	75.2	71.6	73.9			
Average fo	or Week En 10/1	ding: 10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
	72.8	71.8	72.1	69.5	69.9	70.0	69.9	72.3	67.9	73.2		

Source. e 1980: EIA, "Petroleum Statement, Annual (Final Summary)."
e 1981: EIA, "Petroleum Supply Annual."
e January-September 1982: EIA, "Petroleum Supply Monthly"
e October 1, 1982—Current Week: Estimates based on EIA weekly data.

## Stocks of Crude Oil and Petroleum Products, U.S. Totals (Millions of Barrels)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980						··· <del>/</del>				Oun E	373 1	358 2
Crude Oil 2,3	367 5	366 0	367 4	379.8	383 4	381 5	378.7	387 2	376 4	378 5 246 4	257,2	261.3
Motor Gasoline	262.1	274.4	282.7	271.8	283,1	264.8	260 7	259.0	258 1	43 1	439	42.0
let Fuel	38,4	38 3	38 7	39 3	41.3	423	40.9	40 3	42.2	12 5	127	11 6
Kerasene	14 O	13,3	13 1	13 4	13.8	13.9	14.3	133	12.9 232.4	225,7	222 4	205 1
Distillate Fuel Oil	2124	191,6	177.8	177 2	183 4	196,5	2138	226.3	87 9	91.0	93.2	91,8
Residual Fuel Oil	97.2	91.0	88 3	85 3	87 7	87 8	85 6 131.6	86.9 129.6	132 1	131.1	126.3	123,9
Unfinished Oils	112.4	111,3	115 9	123 5	130 6	133 1 199 8	208.5	2147	212 4	204 8	201 4	190 E
Other Oils	165.9	166.3	172.7	185 6 1,275 9	192 4 1,295 6	1,319.7	1.334.2	1.357.4	1,354 3	1,333 0	1,330.1	1,284.4
Total Stocks (Excl SPR)	1,260.0 91.2	1,252 1 91,2	1,256,7 91 2	91.2	91 2	91 2	91.2	91.2	92 8	96 6	102.3	107 8
Crude Oil in SPR	1,351 2		1,347,8	1,357 1	1,386.8	1,410.9	1,425 4	1,448 6	1,447 2	1,4297	1,432.4	1,392,2
Total Stocks (Incl. SPR)	1,351 2	1,343.3	1,347,0	1,007 1	1,000.0	1,710.0	1,120	1,1100	.,	•		
1981					202 2	0047	205.0	202.0	356 <b>0</b>	364 0	366 0	363 5
Cruda Oil <sup>2</sup>	374 0	378 2	393 0	397.5	393,7	384.7	385.9	362.0	237 1	236 1	248 4	253 0
Motor Gasolina <sup>4</sup>	276.1	284.0	285.0	272 1	258.3	241 6 44 9	227 7 44 8	233,3 44,7	43.1	427	42.0	41 1
Jet Fuel	39.5	.38.6	39 0	40.4 12.0	44.5 12.8	13.4	13,3	13.8	13.9	12.7	123	11.0
Kerosene	10.5	10.6	11.2 164.3	164 6	171.8	179 9	186.3	200.2	207 3	201.2	200 1	191,8
Distillate Fuel	179.4	172.5 77.9	74.8	72.9	78.1	69.4	69.3	74,9	80.2	79.9	81.4	78 (
Residual Fuel Unfinished Oils	82.1 121 5	122.3	128 2	126.5	128.3	126.1	126.1	124,5	118,4	1195	116.4	111.3
Ontainsned Ous Other Oifs	192,2	188 5	186 9	194.5	202.7	207.1	212 1	219.0	220.7	214 D	2123	203.9
Total Stocks (Excl. SPR)	1,275.3	1,272 5	1,280.3	1,280 5	1.288.3	1,267 1	1,265 4	1,272.5	1,276 7	1,270.0	1,278.9	1,253,3
Crude Oil in SPR	112 5	116.1	120 9	134 2	150,1	163.1	173.1	184.7	199,2	214.8	222 5	230,3
Total Stocks (Incl. SPR)	1,387.8	1,388.5	1,401.2	1,414.6	1,438.3	1,430.2	1,438.6	1,467.2	1,4760	1,484.8	1,601 5	1,483 6
1982									888.6			
Crude Oil <sup>2</sup>	370 9	371 0	365 7	355 5	348 5	342 8	344 6	351 8	339 9			
Motor Gasoline <sup>4</sup>	262 1	262 1	247 9	2228	214 9	219 7	226 0	226 0	233.8			
Jet Fuel	37 2	37 0	42.5	44 1 9 6	41.8	40 1 9 2	39.8 <b>9.1</b>	40 8 9.5	39 7 9 8			
Kerosene	96	91	88	1088	8.9	124 5	9.1 14B.1	9.5 158 9	1612			
Distillate Fuel Residual Fuel Oil	166 0 68 2	146 7 58 1	127,7 67 3	53 6	114,6 59,1	60.5	59 0	528	618			
Unfinished Oils	116.7	1169	1158	1189	117.9	117.5	117.8	116.0	1178			
Other Oils	195.0	189 3	186 6	180 9	182.8	183.7	182.4	178.1	172 7			
Total Stocks (Excl SPR)	1,225 6	1.190 2	1.152 4	1.094 3	1,088.4	1.098 1	1,126 8	1.133.8	1,136 6			
Crude Oil in SPR	236 3	241 2	248.5	255 5	261.0	264 1	267.2	273.6	277,9			
Total Stocks (Incl SPR)	1,460.9	1,431.4	1,400.9	1,349 9	1,349 4	1,362.3	1,393 9	1,407 4	1,414.5			
Moste Endine												
Week Ending <sup>,</sup>	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
Crude Oil <sup>2</sup>	357 4	257.0	349.6	357 0	355.7	354 2	346.5	254.4	R348.7	356 3		
Motor Gasoline <sup>4</sup>	230 6	357 9 231 2	229.0	228 5	228 7	227 5	227 2	354.4 225 2	R225.2	225.8		
Jet Fuel	39 7	37.8	38.9	40 1	39 9	40.7	40 9	39 2	R40 8	40.3		
Kerosene	10.2	107	10.7	105	10 5	11.0	11.2	116	R117	128		
Distillate Fuel Oil	154 5	158 2	161 6	162,9	163 6	167.8	171.5	176 4	R177 2	184.4		
Residual Fuel Oil	60.8	60 4	60 9	61.7	61.7	61.9	62.9	62.1	R59.9	65 0		
Unfinished Oils	118.8	1190	1176	115.2	113.3	112 4	114.4	111.8	R112.2	1108		
	E187.4	E186 1	E184.8	E175.4	E174.1	E173.1	E172.6	E171.9	E164.5	E163 4		
Other Oils 5 Total Stocks (Excl. SPR)	1,159 3	1,161,3	1,153 1	1,151.3	1,147.6	1,148,5	1,147.1	1,152.4	R1,140.3	1,158,8		
Other Oils 5				1,151.3 283.4	1,147.6 284.3	1,148.5 284.9	1,147.1 286 2	1,152.4 286.3	R1,140.3 288.2	1,158.8 290.0		

R=ELA revision

E-Estimated See definition of "Stock Change (Refined Products)" for explanation

1 Product stocks include those stocks held at refineries, in pipelines, and at major bulk terminals. Stocks held at natural gas processing plants are included in "Other Oils" and in totals. All stock levels are as of the end of the period.

2 Crude oil stocks include those stocks held at refineries, in pipelines, lease tanks, and in transit to refineries, and do not include those held in the Strategic Petroleum Reserve

3 The December 1980 crude oil stock level shown here is from the 1980 "Petroleum Statement, Annual" and is not the same as the 1981—basis crude oil stock level used in the calculations for the U.S. Patroleum Balance Sheet (see footnote 3, page 1).

4 Mostor gasoline stocks are the sum of stocks of finished motor gasoline and stocks of motor gasoline blending components, shown in the "Petroleum Supply Annual" and the "Petroleum Supply Monthly." The 1982 weekly motor gasoline stocks statistics are comparable to the 1981 and 1982 monthly statistics

6 Weekly totals for stocks of other alls, which include aviation gasoline, natural gas liquids including ethane, petrochemical feedstocks, special naphthas, tube oils, wax, coke, asphalt, road oil, and miscale processing plants are estimated using monthly rate.

Weekly totals for Rocks of Union up, which include executing services and miscellaneous oils are estimated using monthly data.

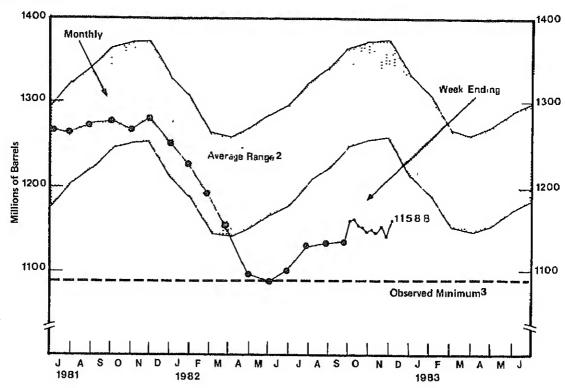
Seurce: e 1980 EIA, "Petroleum Statement, Annual (Finel Summary)."

e 1981 EIA, "Petroleum Supply Annual."

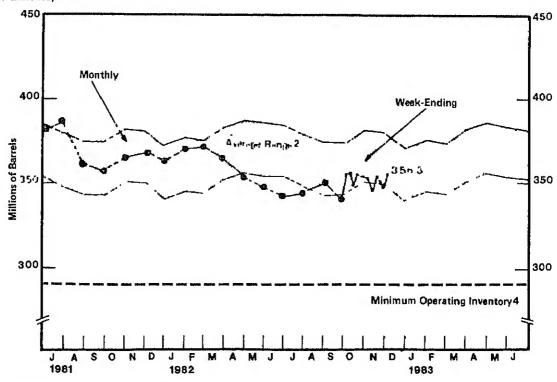
e January-September 1982: EIA, "Petroleum Supply Monthly"

e October 1, 1982—Current Week: Estimates based on EIA weekly data

## Stocks of Crude Oil and Petroleum Products, U.S. Total (Millions of Barrels)



## Stocks of Crude Oil. U.S. Total (Millions of Barrels)



<sup>1</sup> Excludes stocks held in the Strategic Petroleum Reserve and includes crude all in transit to refineries.

<sup>2</sup> Average livel, width of average range, and observed minimum are based on three years of monthly data: July 1978—June 1882. The seasonal pattern is based on seven years of monthly data. January 1975—December 1981. See Appendix B for further explanation.

3 The observed minimum for total stocks in the last three-year period, July 1979—June 1982, was 1088 4 million barrels. It occurred in May 1982. See Appendix B for further

explanation

<sup>4</sup> The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for crude oil to be 290 million berrels. See Appendix B for further explanation.

Source: • Renges and Sessonal Patterns 1975-1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual,"

• Monthly data 1981, EIA, "Petroleum-Supply Annual," January-September 1982, EIA, "Petroleum Supply Monthly"

• October 1, 1982—Current Week: Estimates based on EIA weekly data

## Stocks of Motor Gasoline by District <sup>1</sup> (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	<del></del>	<del></del>										·
East Coast (PAD 1)	70.2	75.0	73.7	74.8	75.2	76.4	72.9	72,8	75.7	69.9	69.2	71.1
Midwest (PAD 2)	83.1	85.0	89.0	83.3	76.9	79.1	78.9	76,8	77.5	70.9	72.8	76,9
Gulf Coast (PAD 3)	69.8	73.7	80.9	75.7	74.3	73.2	73.2	71.4	68.3	69.8	75.8	73.8
Rocky Mountain (PAD 4)	8.8	9.3	9.7	9.4	8.9	8.4	6,6	6.5	6.2	6.6	7.8	8.6
West Coast (PAD 5)	30.3	31.4	29.4	28.6	27.8	27.9	29.1	30.2	30.5	29.2	31.6	31,0
Total U.S. <sup>2</sup>	262.1	274.4	282.7	271.8	263,1	264.8	260.7	259.0	258.1	246.4	257.2	261.3
1981												
East Coast (PAD 1)	71.7	74.2	79.5	77.9	73.1	69.5	62.7	64.3	69,6	69.6	69.7	<b>6</b> 9.5
Midwest (PAD 2)	86.0	90.4	89.7	84.2	80.1	72.4	65.9	66.7	65.3	66.0	69.2	72.6
Gulf Coast (PAD 3)	77.2	79.6	78.5	76.2	72.2	65.9	64.0	68.6	68.5	65.0	70.6	69,5
Rocky Mountain (PAD 4)	9.7	10.3	10.2	9.4	8.6	7.4	6.5	6.0	5.8	6.3	7.7	8.5
West Coast (PAD 5)	31.5	29.5	26.9	24.4	24.3	26.3	28.6	27.8	27.9	29.2	31.2	32.9
Total U.S?	276.1	284.0	285.0	272.1	258.3	241.6	227.7	233.3	237.1	236.1	248.4	253.0
1982												
East Coast (PAD 1)	71.7	69.6	67.1	61.7	63.6	66.0	63.1	62.4	63.5			
Midwest (PAD 2)	78.6	79.1	74.8	63.2	56,8	56.6	62,6	65.8	69.5			
Gulf Coast (PAD 3)	70.2	69.2	68.0	63.4	63.6	65.0	66.0	64.4	67.4			
Rocky Mountain (PAD 4)	9.6	9.9	10.1	8.9	7.7	6.5	5.8	5.5	5.7			
West Coast (PAD 5)	32.0	34.3	27.8	25.5	23.3	25.7	28.4	27.7	27.7			
Total U.S. <sup>2</sup>	262.1	262.1	247.9	222.8	214.9	219.7	226.0	226.0	233.8			
Week Ending:												
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
East Coast (PAD 1)	63.1	62.1	62.0	62.6	62.6	62.8	63,6	62.8	R64.6	64.8		
Midwest (PAD 2)	70.0	70.7	70.7	70.3	68.3	67.0	65.5	65.7	R65.1	66.6		
Gulf Coast (PAD 3)	66.0	66.9	64.5	64.1	65.7	66.1	66.1	64.6	R64.2	62.1		
Rocky Mountain (PAD 4)	5.5	5.7	5.8	5.8	5.9	6.0	6.2	6.4	R6.6	6.8		
West Coast (PAD 5)	25.9	25.8	26.0	25.7	26.2	25.6	25.9	25.7	24.8	25.6		
Total U.S. <sup>2</sup>	230.6	231.2	229.0	228.5	228.7	227.5	227.2	225.2	R225.2	225.8		

R=EIA revision.

1 Districts are Petroleum Administration for Defense (PAD) Districts.

2 PAD district date may not add to total due to independent rounding.

Source • 1980 Totals EIA, "Petroleum Statement, Annual (Final Summary) "

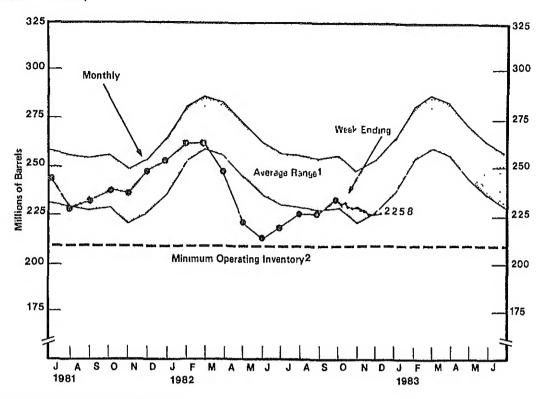
• 1980 Regional Data Unpublished data based on "Petroleum Statement, Annual (Final Summary) "

• 1981 • EIA, "Petroleum Supply Annual."

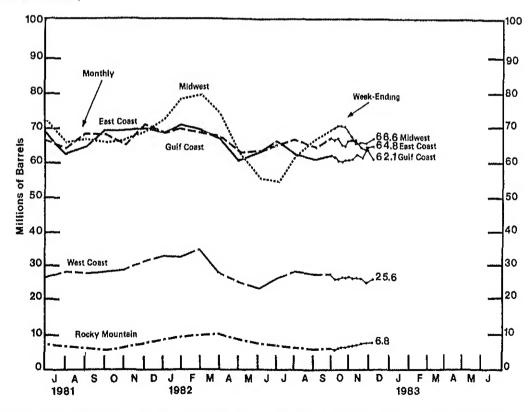
• January—Saptember 1982 EIA, "Petroleum Supply Monthly,"

• October 1, 1982—Current Week. Estimates based on EIA weekly data.

Note Motor gasoline stocks are the sum of finished motor gasoline and stocks of motor gasoline blending components.



### Stocks of Motor Gasoline by District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data. July 1979—June 1982 The seasonal pattern is based on six years of monthly data
January 1975—December 1976 and January 1978—December 1981. See Appendix B for further explanation.

2 The National Petroleum Council defines the Minimum Operating inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for motor gasoline The relationary for fouring postness the Aministry Determination of the Particle of Postness to Particle of Postness the Aministry of the Particle of Postness to Beauty and Particle of Postness to Beauty and Particle of Pa

## Stocks of Distillate Fuel Oil by District<sup>1</sup> (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												
East Coast (PAD 1)	92.1	77.9	67.1	71.4	78,0	85,8	96.0	104.1	108.2	106.5	103.3	90.3
Midwest (PAD 2)	65.5	61.1	57.3	55.7	54.3	56,8	60.2	62.4	62.6	57.4	58.2	58,5
Guif Coast (PAD 3)	38.7	36.1	36.8	33.5	34.7	38.4	41.2	42.9	45.5	46.1	44.2	39.8
Rocky Mountain (PAD 4)	3.5	3.7	3.9	3.9	3.8	3.5	3.9	3.9	3.6	3.3	3.3	3.4
West Coast (PAD 5)	12.6	12.8	12.8	12.8	12.6	12.1	12.6	13.0	12.4	12.3	13.4	13.1
Total U.S. <sup>2</sup>	212.4	191.6	177.8	177.2	183.4	196.5	213.8	226.3	232.4	225.7	222.4	205.1
1981												
East Coast (PAD 1)	71.9	69.8	64.7	ô4.4	68.2	73.8	81.3	86.3	92.0	94.8	96.0	87.4
Midwest (PAD 2)	57.7	56.1	52,5	52.4	50.5	48.7	49.8	54.1	54.3	51.0	51.6	50.0
Gulf Coast (PAD 3)	34.0	32.3	32.4	34.7	39.2	42.9	40.7	44.5	44.8	39.8	36.7	35,5
Rocky Mountain (PAD 4)	3.4	3.3	3.3	2.9	3.2	3.4	3.7	3.8	3,6	3.3	3.6	3.9
West Coast (PAD 5)	12.4	11.1	11.4	10.3	10.7	11.1	10.8	11.4	12.5	12.3	12.3	14.7
Total U.S. <sup>2</sup>	179.4	172.5	164.3	164.6	171.8	179.9	186,3	200.2	207.3	201.2	200.1	191.5
1982												
East Coast (PAD 1)	69.2	58.4	44.9	35,1	39.2	44.2	57.4	63.9	68.0			
Midwest (PAD 2)	47.4	43.8	40.2	31,2	31,2	34.1	42.6	45.5	45.5			
Gulf Coast (PAD 3)	30.8	26.7	27.5	28.2	31.0	32.5	34.2	35.8	34.1			
Rocky Mountain (PAD 4)	4.1	3.9	3.7	3.1	2.8	3.0	3.4	3,5	3.5			
West Coast (PAD 5)	14.5	13.9	11.4	11.1	10.3	10.7	10,6	10.2	10.1			
Total U.S. <sup>2</sup>	166.0	146.7	127.7	108.8	114.5	124.5	148.1	158.9	161.2			
Week Ending:												
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
East Coast (PAD 1)	63.7	67.0	68.6	69.6	71,7	75.9	77.6	82.1	R84.2	88.4		
Midwest (PAD 2)	44.6	45.1	46.4	46.3	45.5	45.1	44.9	44.6	R45.1	45.6		
Gulf Coast (PAD 3)	33.4	33,4	34.1	34.9	34.5	35.0	36.6	37.5	R35.1	37.1		
Rocky Mountain (PAD 4)	3,4	3.3	3.4	3.3	3.2	3.4	3.3	3.0	3.3	3.3		
West Coast (PAD 5)	9.3	9.4	9.1	8.8	8.7	8.5	9.1	9.2	R9.5	10.0		
Total U.S. <sup>2</sup>	154.5	158.2	161.6	162.9	163.6	167.8	171.5	176.4	R177.2	184.4		

R-EIA revision

1 Districts are Petroleum Administration for Defense (PAD) Districts

2 PAD district data may not add to total due to independent rounding

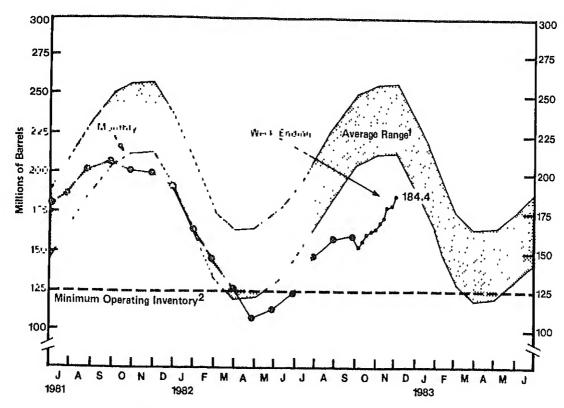
Source • 1980 Totals EIA, "Petroleum Statement, Annual (Final Summary) "

• 1980 Regional Date Unpublished data based on "Petroleum Statement, Annual (Final Summary)."

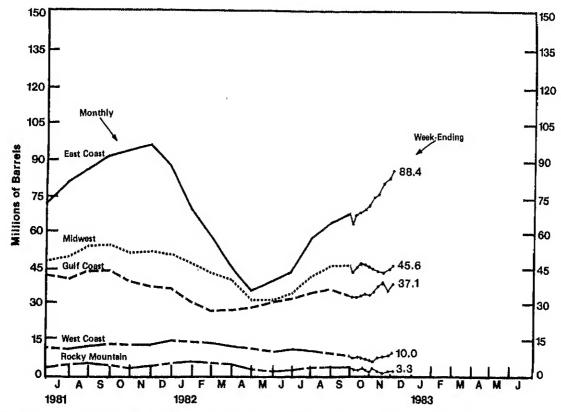
• 1981 EIA, "Petroleum Supply Annual."

• January—September 1982. EIA, "Petroleum Supply Monthly"

• October 1, 1982—Current Week Estimates based on EIA weekly data.



Stocks of Distillate Fuel Oil by District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data: July 1979—June 1982. The seasonal pattern is based on seven years of monthly data: January 1975—December 1981. See Appendix B for further explanation
2 The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for distillate fuel oil to be 125 million barrels. See Appendix B for further explanation.

Source: • Ranges and Seasonal Patterns 1975—1980, EIA, "Petroleum Statement Annual (Final Summery)," 1981, EIA, "Petroleum Supply Annual."

• Monthly Data. 1981, EIA, "Petroleum Supply Annual, January—September 1982, EIA, "Petroleum Supply Monthly."

• October 1, 1981—Current Week: Estimates based on EIA weekly data.

# Stocks of Residual Fuel Oil by District<sup>1</sup> (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												45.4
East Coast (PAD 1)	49.0	42.6	43.0	43.8	43.4	45.1	44.0	43.6	43.8	45.9	46.5	45.4
	12.7	12.5	12.0	10.7	10,8	10.9	9.8	9,3	8.9	9.0	8.6	9,1
Midwest (PAD 2)	22,1	22.7	19.5	17.3	20.1	18.9	19.4	21.0	22,3	23.0	25.2	23.8
Gulf Coast (PAD 3)	1.0	1.0	0.9	0,9	0,8	0.8	0.9	0.9	0.9	8.0	0.9	9.0
Rocky Mountain (PAD 4)		12.1	12.8	12,5	12.6	12.0	11.6	12.0	12.0	12.3	12.1	12.6
West Coast (PAD 5)	12.4	12.1	12.0	12.0	14.0							04.6
Total U.S. <sup>2</sup>	97.2	91.0	88.3	85,3	87.7	87.8	85.6	86.9	87.9	91.0	93.2	91.8
1981										45.4	40.0	40.1
East Coast (PAD 1)	39.0	38.5	37,3	36.3	38.2	33.6	33.0	34.4	40.0	40.4	43.0	40.1
Midwest (PAD 2)	9,2	9,0	7.9	7.3	7.1	7.0	7.7	8.1	8.5	8.0	8.2	8.
Gulf Coast (PAD 3)	21.8	19.7	19.4	19.1	21.7	17.0	17.4	21.2	20.4	20.4	19.7	18.
Rocky Mountain (PAD 4)	0.8	0.7	0:6	0.5	0.6	0.6	0.5	0,6	0.7	0.7	0.7	Ŋ,
West Coast (PAD 5)	11.4	10,1	9.7	9.7	10.5	11.2	10.7	10.7	10.7	10.4	9.8	10.
Total U.S. <sup>2</sup>	82.1	77.9	74.8	72.9	78.1	69.4	69.3	74.9	80.2	79.9	81.4	78.0
1982	00.0	04.0	04.0	23.5	28.3	28.2	27.1	23.1	29.0			
East Coast (PAD 1)	32.2	24.9	24.8			5.7	5.7	5.3	5.8			
Midwest (PAD 2)	7.7	7.3	7.0	6.2	6.0				16.2			
Gulf Coast (PAD 3)	17.4	14.4	14.7	13.5	14.9	17.1	16.4	15,6				
Rocky Mountain (PAD 4)	0.6	0.7	0.6	0.5	0,5	0.5	0.5	0.4	0.5			
West Coast (PAD 5)	10.2	11.0	10.3	9.9	9.4	9.2	9,3	8.4	10.4			
Total U.S. <sup>2</sup>	68.2	58.1	57.3	53.6	59.1	60.5	59.0	52.8	61.8			
Week Ending:												
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
East Coast (PAD 1)	29.5	28,9	29.0	30.7	32,1	32.5	33.8	34.4	R32.0	35.5		
Midwest (PAD 2)	5,6	5.1	5.1	4.9	4.8	4.6	4.7	4,6	4.7	4.7		
Gulf Coast (PAD 3)	15.7	16.5	17.1	16.1	14.9	15.8	16.1	14.9	14.4	16.1		
Rocky Mountain (PAD 4)	0.6	0.6	0.6	0.7	0,6	0.6	0.6	0.6	0.6	0,6		
West Coast (PAD 5)	9.5	9.2	9.2	9.3	9.3	8.4	7.8	7.6	R8.2	8.1		
Total U.S. <sup>2</sup>	60.8	60.4	60.9	61.7	61.7	61.9	62.9	62.1	R59.9	65.0		

R=EIA revision.

1 Districts are Patroleum Administration for Defense (PAD) Districts.

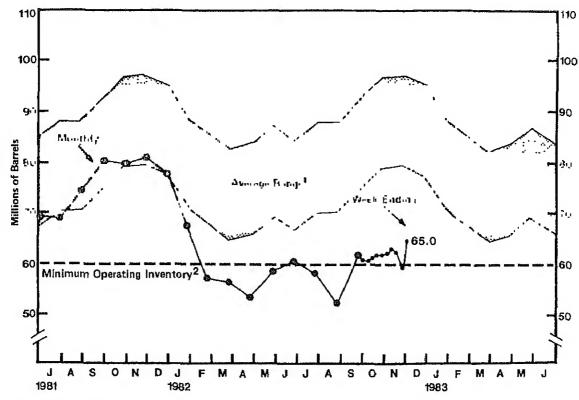
2 PAD district data may not add to total due to independent rounding
Source\* • 1980 Totals EIA, "Patroleum Statement, Annual (Final Summary)"

• 1980 Regional Data: Unpublished data based on "Petroleum Statement, Annual (Final Summary)."

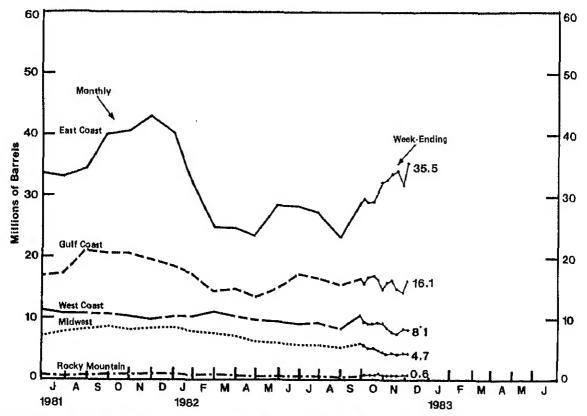
• 1981 - EIA, "Patroleum Supply Annual."

• January-September 1982 · EIA, "Petroleum Supply Monthly."

• October 1, 1982—Current Week. Estimates based on EIA weekly data.



Stocks of Residual Fuel Oil by District (Millions of Barrels)

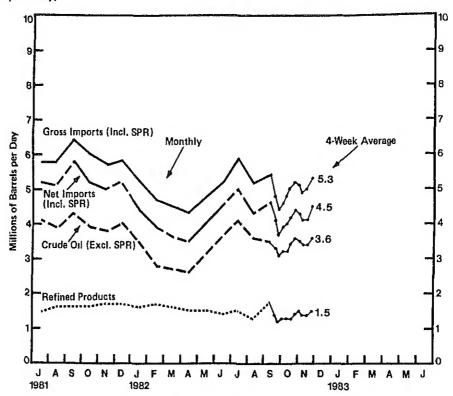


<sup>1</sup> Average level and width of average range are based on three years of monthly date. July 1979—June 1982. The seasonal pattern is based on seven years of monthly data: January 1975—December 1981. See Appendix 8 for further explanation.

2 The National Petroleum Council defines the Minimum Operating (eventory as the minimum level required for routine operation. In their 1979 study, they defined this Inventory level for residual fuel oil to be 60 million berrels. See Appendix 8 for further explanation.

Source: e Ranges and Seasonal Patterns 1975—1980, EIA, "Petroleum Stetement Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual," e Monthly Data: 1981, EIA, "Petroleum Supply Annual, January—September 1982, EIA, "Patroleum Supply Monthly."

e October 1, 1982—Current Week: Estimates based on EIA weekly data



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980										<del></del>		
Crude Oil (Excl. SPR)	6.4	6.0	5.7	5.6	5.1	5.5	4.8	4.8	4.7	4.6	4.5	4,9
SPR	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0,2
Refined Products	2.2	1.9	1.8	1,5	1,5	1.4	1.4	1.4	1.5	1.6	1.7	1.8
Total (Gross Incl. SPR) Total Exports	8.6	7.9	7.5	7.1	6.6	6.9	6.3	6.2	6.2	6.4	6.4	6.9
Total (Net Incl. SPR)	0.5 8.0	0.6 7.4	0.6	0.4	9.0	0.7	0.5	0.3	0.6	0.6	0.5	0.6
Total (rectificity of It)	0,0	7.4	6.9	6.7	6.0	6.2	5.7	5.9	5.7	5.8	5.9	6.3
1981												
Crude Oil (Excl. SPR)	4.8	4.8	4.4	4.1	3,9	3.7	4.1	3.9	4,3	3,9	3.8	4.0
SPR	0.1	0.1	0.1	0.3	0.4	0.3	0.2	0.3	0.4	0.5	0.3	0.2
Refined Products	1.9	1.9	1.5	1.3	1.5	1.4	1.5	1.6	1.6	1.6	1.7	1.7
Total (Gross Incl. SPR)	6.8	6.8	6.0	5.7	5.8	5.4	5.8	5.8	6.4	6.0	5.7	5.8
Total Exports <sup>1</sup> Total (Net Incl. SPR)	0.6	0.6	0.6	0.6	0.6	0.4	0.6	0.6	0.5	0.7	0.7	0,7
Total (Wet IIIci. SFR)	6.3	6.2	5.4	5,1	5.2	5.0	5.2	5.1	5.8	5.2	Б.0	5.2
1982												
Crude Oil (Excl. SPR)	3.5	2.8	2.7	2.6	3.1	3.7	4.1	3.6	3.5			
SPR	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1			
Refined Products	1.6	1.7	1.6	1,5	1.5	1.4	1.5	1,3	1.8			
Total (Gross Incl. SPR)	5.2	4.7	4.5	4.3	4.8	5.2	5.8	5.2	5.4			
Total Exports	8.0	8.0	0.9	8,0	8,0	0.7	0.7	0.9	0.8			
Total (Net Incl. SPR)	4.4	3.9	3.6	3,5	4.0	4.5	5.0	4.3	4.6	1		
Average for Four-Week Per	iod Endin	ıa:										
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
Crude Oil (Excl. SPR)	3.3	3.1	3.2	3.2	3.4	3.6	3.5	2.4	2.4			
SPR	0.1	0.1	0.2	0.2	0.2	0.2	0.2	3.4 0.1	3.4	3.6		
Refined Products	1.4	1.2	1.3	1.3	1.3	1.4	1,5	1.4	0.1 1.4	0,2 1,5		
Total (Gross Incl. SPR)	4,8	<b>4.4</b>	4.6	4.8	5.0	5.2	5.1	4.9	5.0	5,3		
Total Exports1	E0.7	E0.7	E0.7	E0.8	E0.8	E0.8	E0.9	E0,9	E0,8	E0.8		
Total (Net Incl. SPR)	4,1	3.7	3.9	4.0	4.2	4.4	4,3	4.1	4.1	4.5		

E=Estimates based on most recent monthly data available,

1 includes exports of crude oil and refined petroleum products

Exports of crude oil are prohibited under normal circumstances
barrel-for-barrel basis, Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

Source • 1980. EIA, "Petroleum Statement, Annual (Final Summary)."

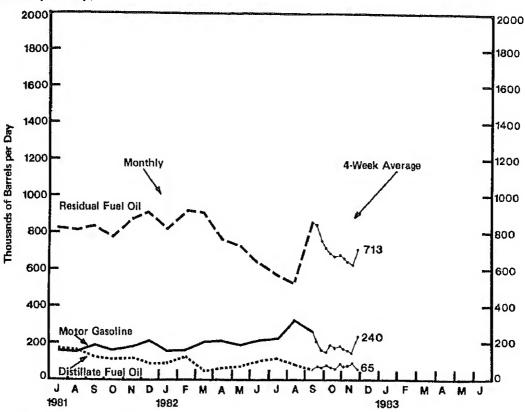
• 1981 EIA, "Petroleum Supply Annual"

• January—September 1982 • EIA, "Patrolaum Supply Monthly."

• October 1, 1982—Current Week. Four-week averages based on EIA weekly data.

Note Detail data may not add to total due to Independent rounding

## Gross Imports of Petroleum Products by Product (Thousands of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1980					1								
Motor Gasoline <sup>7</sup>	141	154	155	155	132	148	149	141	106	152	126	121	
Jet Fuel	96	43	100	110	73	86	93	67	77	86	63	60	
Distillate Fuel Oil	179	237	193	154	126	108	117	77	101	115	133	166	
Residual Fuel Oil	1,338	1,122	976	775	812	749	787	875	906	875	1,024	1,025	
Other <sup>2</sup>	437	376	333	315	330	323	267	230	343	384	<b>3</b> 80	438	
1981													
Motor Gasoline <sup>1</sup>	158	121	200	209	177	197	169	167	196	169	189	212	
Jet Fuel	15	38	76	55	47	68	35	47	46	14	9	7	
Distillate Fuel Oil	273	325	147	116	179	225	179	174	129	119	124	95	
Residual Fuel Oil	1,015	954	699	584	741	540	830	819	841	786	880	916	
Other <sup>2</sup>	434	462	385	366	345	344	309	380	389	492	492	476	
1982													
Motor Gasoline <sup>1</sup>	158	165	202	208	199	218	237	334	273				
Jet Fuel	10	62	39	47	31	3	15	26	30				
Distillate Fuel Oil	96	130	48	59	74	100	124	79	59				
Residual Fuel Oil	821	928	910	762	738	643	576	519	871				
Other <sup>2</sup>	500	456	405	397	429	482	566	378	524				
Average for Four-We	ek Period	Endina:											
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3			
Motor Gasoline <sup>1</sup>	211	169	159	194	184	192	178	168	R157	240		<del></del>	
Jet Fuel	28	20	28	26	23	25	17	18	R23	23			
Distillate Fuel Oil	75	67	79	71	62	84	78	79	R95	65			
Residual Fuel Oil	848	758	716	695	671	679	660	639	R626	713			
Other 2	195	218	273	324	400	462	535	541	539	500			
			_ · ·		· <del>-</del>								

R=E1A revision.

H=EIA rovision.

I includes imports of finished motor gasoline and imports of motor gasoline blending components,

I includes imports of kerosene, unfinished oils, and other oils.

Source:

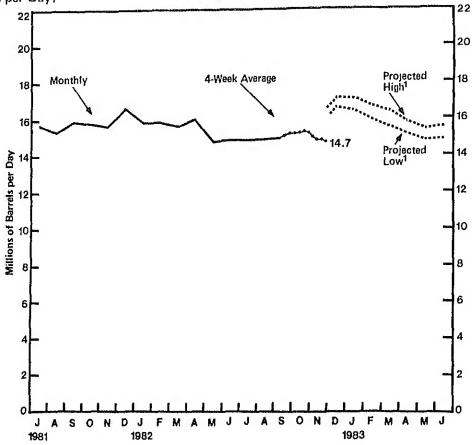
1980: EIA, "Petroleum Statement, Annuel (Finel Summary),"

1991: EIA, "Petroleum Supply Annuel,"

January—September 1982: EIA, "Petroleum Supply Monthly"

October 1, 1982—Current Week: Four-Week averages based on EIA weekly data.

Total Petroleum Products Supplied for Domestic Use (Millions of Barrels per Day)



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	18.9	18.8	17.4	16.8	16.2	16.2	16.0	15,8	16.6	17.0	16.7	18.4
1981	18.4	17.0	15.9	15.4	15.4	16.1	15.7	15.3	15.9	15.8	15.6	16.6
1982	15.9	15.9	15.6	16.0	14.8	14.9	14.8	14,8	14.9			
Average for Fou 1982	ır-Week Peri 10/1	od Endin 10/8	g: 10/15	10/22	10/29	17/5	11/12	11/19	11/26	12/3		
	15.1	15.2	15.2	15.2	15.3	15.2	15.0	14.8	R14.8	14,7		

R=ElA revision.

1 Projected. See Appendix C for explanation of derivation of values

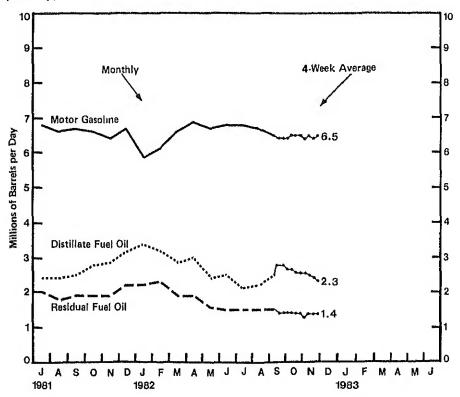
Source: e 1980: ElA, "Patroleum Statement, Annual (Final Summary)."

e 1981: EIA, "Petroleum Supply Annual."

e January-September 1982: EIA, "Petroleum Supply Monthly"

e October 1, 1982—Current Week: Four-week averages based on EIA weekly data.

e Projections EIA, Office of Energy Markets and End Use (August 1982).



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980										0.7		•
Motor Gasoline	6.3	6.6	6.4	6.8	6.7	6.7	6.7	6,6	6.5	6.7	6.2	6.6
Jet Fuel	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.0	1.1	1.0	1.0	1.1
Kerosene	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Distillate Fuel Oil	3.7	3.7	3,2	2.6	2.4	2.3	2.2	2.1	2.6	2.9	2.9	3.6
Residual Fuel Oil	3,1	3.1	2.7	2.4	2.2	2.3	2.3	2.3	2.4	2.2	2.5	2.7
Other	4.4	4.1	3.8	3.7	8,8	3.7	3,5	3,5	4.0	4,0	3.9	4.2
1981												
Motor Gasoline <sup>1</sup>	6.4	6.3	6,3	6.6	6.6	7.0	6.8	6.6	6.7	6,6	6.4	6.7
Jet Fuel	1.1	1,0	1.1	1.0	0.9	1.0	1.1	1.0	1.0	0.9	1.0	1.0
Kerosene .	0.2	0.2	0.1	0.1	0.1	0,1	0.1	0.1	0.1	0,1	0.1	0.2
Distillate Fuel Oil	4.1	3.4	2,9	2.5	2,4	2.4	2.4	2.4	2.5	2.8	2.9	3.2
Residual Fuel Oil	2.9	2.5	2.1	1.9	1.8	2.0	2.0	1.8	1.9	1.9	1,9	2.2
Other	3.7	3.5	3,4	3,3	3.5	3.4	3.3	3.3	3,5	3.5	3.3	3.3
1982												
Motor Gasoline <sup>1</sup>	5.9	6.1	6.6	6.9	6.7	6.8	6.8	6.7	6.5			
Jet Fuel	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0			
Kerosene	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0,1	0.1			
Distillate Fuel Oil	3.4	3.2	2.9	3.0	2,4	2.5	2.1	2.2	2.5			
Residual Fuel Oil <sup>1</sup>	2.2	2.3	1.9	1.9	1,6	1.5	1.5	1.5	1.5			
Other	3.2	3.2	3,1	3.2	3.1	3,1	3.3	3.4	3.3			
Average for Four-We	ek Period	l Endina:										
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3		
Motor Gasoline <sup>1</sup>	6.4	6.4	6.4	6.5	6,5	6.5	6.4	6.5	R6.4	6.5		
Jet Fuel	1.0	1.0	1.0	1.0	1.0	0,9	1.0	1.1	1.0	1,1		
Kerosene	0.1	0.1	0,1	0.2	0.2	0.2	0.2	0.2	0.1	0.1		
Distillate Fuel Oil	2.8	2.8	2.7	2.7	2.6	2.6	2,6	2.5	2.4	2.3		
Residual Fuel Oil 1	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4		
Other	3.3	3.5	3,6	3.5	3.5	3.5	3.4	3.2	3.4	3,4		

R-EIA revision.

1 Products supplied statistics for 1981 and 1982 should not be compared with those for prior years because, in January 1981, EIA modified its definitions for motor gasoline, distillate fuel oil, and residuel fuel oil. See Appendix D for further explanation

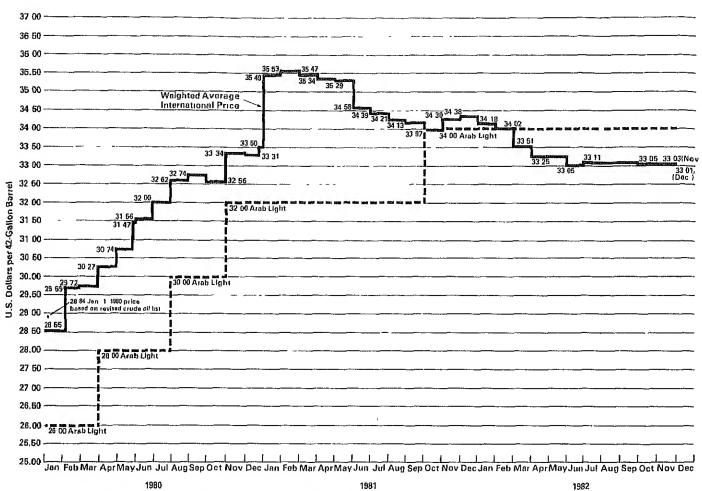
Source: e 1980 EIA, "Petroleum Statement, Annual (Final Summary)."

e 1981: EIA, "Petroleum Supply Annual."

e January...September 1982: EIA, "Petroleum Supply Monthly."

e October 1, 1982—Current Week: Four-week averages based on EIA weekly data,

## World Crude Oil Prices1 (Dollars per Barrel)



u Internationally traded oil only Average price (FOB) weighted by estimated export volume

Note Beginning with the May 1, 1981 issue of the Weekly Petroleum Status
Report, the world crude oil price is based on a revised crude list
Additions Saudi Arabia's Arabian Heavy Dubai's Fateb, Egypt's Suez Blend, and Mexico's Maya
Omissions Canadian Heavy
Replacements, Iraq's Kirkuk Bland for Iraq's Bassah Light
The above graph shows an estimated world crude oil price based on this revised list
beginning January 1, 1981. An estatisk shows the January 1, 1990 price based on the revised
list, All other 1980 prices represent the old crude list before revisions.

	Type of							Change rice From
Country	Crude/ API Gravity	Current Price	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jan 80	In Effect 31 Dec 78	in Effect 1 Jan 80	In Effect 31 Dec 78
OPEC								
Saudi Arabia	Arabian Light 34 <sup>0</sup> (Bench mark crude)	34 00	34 00	32 00	26 00	12.70	30 8	167 7
	Saudi Berri 390	34.52	35 40	33 52	27 52	13 23	25 4	160 9
	Arabian Heavy 28 <sup>0</sup>	31 00	31.00	31 00	25 00	12,02	24 0	157.9
Abu Dhabi	Murban 39 <sup>0</sup>	34 56	35 50	36.56	29.56	13 26	16 9	160 6
Dubai	Fatel 320	33 86	33 86	35.93	27 93	12 64	21.2	167,9
Qater	Dukhan 40 <sup>o</sup>	34 49	35 45	37 42	29 42	13 19	17.2	161.5
Iran	tranian Light 340	31.20	34,20	37 00	230 00	13 45	40	1320
Iraq	Kirkuk 36 <sup>0</sup>	34,83	34 93	37 50	29 29	13 17	18.9	164 5
Kuwait	Kuwait Blend 31°	32 30	32 30	35.50	27 50	12 22	17.5	164 3
Neutral Zone	Khafji 28°	31 03	31 03	35 20	27 20 27 20	12 22		157 9
Algeria	Saharan 44°	35 50	37 00	40 00	33 00		14.1	
Nigeria	Bonny Light 37°					14 10	7.6	151.8
Libya	Es Sider 37	35 60	36 50	40 00	29 97	15 12	18.5	134 8
Indonesia	Minas 34°	35 10	36,50	40 78	34,50	13 68	1.7	156 6
Venezuela		34.53	35 00	35 00	27 50	13 55	25 <b>6</b>	154 8
Gabon	Tia Juana 26 <sup>0</sup>	32 88	32 88	32.88	25 20	12.72	30.5	158,5
	Mandji 29,6 <sup>0</sup>	34 00	34.00	35.00	28 00	12 59	21.4	170 1
Ecuador	Oriente 30 <sup>0</sup>	32,50	34 25	40.06	33 50	12.35	-3.0	163.2
Total OPEC <sup>3</sup>	NA	33 54	34.13	34.82	28,30	13 03	18.5	157.4
Non OPEC								
United Kingdom	Fortles 38.50	33,50	36,50	39.26	29.75	14 00	12 6	139,3
Norway	Ekofisk 42°	34,25	37.25	40.00	32.50	14,20	5.4	141.2
Mexico	Mexican Light 320	32 60	35 00	38,60	32.00	13.10	1.6	148.1
"	Mexican Heavy 220	25.00	26.50	34.50	28.00	NA	-10.7	NA.
Egypt	Suez Blend 33 <sup>b</sup> Oman 36 <sup>o</sup>	431.75	34.00	40.50	34,00	12.81	-6.6	147.9
Oman	Oman 36 <sup>0</sup>	34.00	35.00	37.50	30.26	13.06	12,4	160.3
Syria	Suwadiyah 260	30 00	30.00	36.03	31,39	11.64	4.4	157.7
Malaysia	Suwadiyah 25° Miri 38°	35.60	36 50	41.30	33.60	14.30	6.0	149 0
	Seria 36.5°	35 10	36.10	40 35	33.40	14.15	5.1	1481
Brunel U.S.S.R.5	Export Bland 33 <sup>0</sup>	31.20	35 49	39,26	33,20	13,20	6 O	136.4
Total Non OPEC 3	NA	31,77	34,35	38 54	31,94	13.44	0.5	136,4
Total World <sup>3</sup>	NA	33,01	34.18	35.49	28.84	13 08	14,5	162,4
United States 6	NA	32.61	34.15	36,69	29,35	13.38	10.8	143.0

NA=Not Applicable.

1 Official sates prices or estimated term contract prices; spot prices excluded 2 37c higher at 50 days' credit.

3 Average prices (FOB) weighted by estimated export volume.

4 On 60 days' credit.

5 Average delivered cost to Northwest Europe.

6 Average prices (FOB) weighted by estimated import volume.

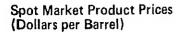
Source. • DOE, Office of International Affairs, December 8, 1982.

• Platt's Oligram Price Report.

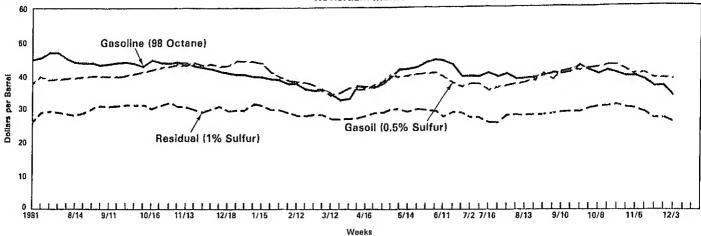
• Petroleum Intelligence Weekly.

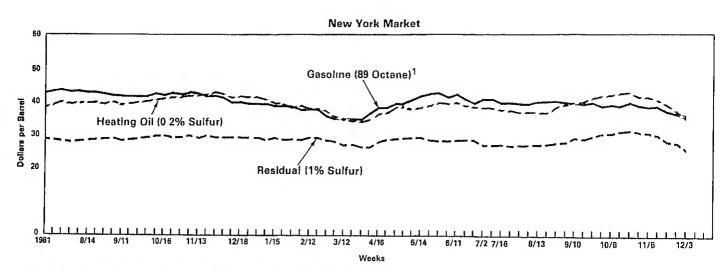
• Oit Buyers' Quide.

• Europe Oil Prices.





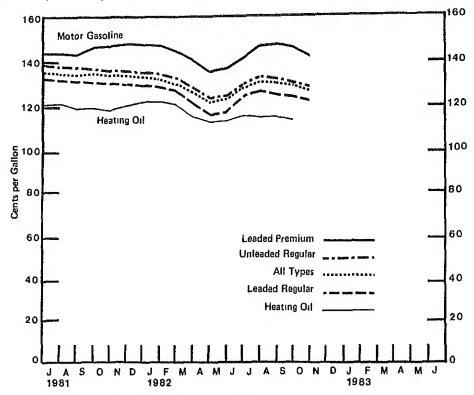




The prices shown through September 25, 1981 are for 94 octane gasoline rather than for 89 octane gasoline, Source. 
 Oil Buyers' Guide, Weekly Oil Market Product Report.
 DOE, Office of International Affairs.

		Motor (	Gasoline	Gasoil/H	eating Oil <sup>1</sup>	Residu	al Fuel Oil <sup>2</sup>
		Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur)
981 Dec	4	42.15	41.03	43.57	42.10	29.88	29.90
	11	41.03	39.61	42.83	41.16	30.41	29.00
	18	41.03	39.82	43.16	41.48	29.20	29.00
	24	40.50	39.50	44.57	41.48	29.50	29.00
982 Jan	8	39.98	39,67	44.30	40.42	31.68	28.40
	15	38,68	38.72	43.57	39,90	30.78	29.00
	22	38.57	38.93	40.88	39.38	29.50	28.35
	29	38.22	38.30	39.21	38.22	29.73	28.70
Feb	5	37.22	37.67	38.40	38.54	28.68	28.50
	12	37.22	37.61	37.87	37.90	27.93	29.25
	19	35.93	37.61	37.87	37.80	27.93	29.25
	26	35.52	35.72	37.00	37.38	28.08	28.50
Mar	5	35.46	34.88	35.32	35.28	28.08	28.00
	12	34.41	34.57	34.38	33.60	26.95	27.00
	19	32.42	34.55	34.99	34.02	26.50	27.00
	26	32.83	34.52	36.13	34.06	26.65	26.25
Apr	2	36.64	36.54	35.52	34,54	26,80	26.25
·	2 9	36.17	38.01	35.72	36.12	27.78	27.70
	16	36.64	38.22	36.66	36.54	28.53	28.50
	23	37.51	39.69	37.87	38.22	28.75	28.75
	30	39.57	39.40	39.68	38.32	29.43	29.00
May	7	41.68	40.53	38.81	37.80	29.80	29.25
	12	41.85	41.87	39.21	38.32	29.73	29.50
	1 <del>9</del>	42.67	42.29	40.21	38.85	29.73	28.75
	26	43.79	42.61	40.35	39.69	29.43	28.35
Jun	4	44.37	41.68	40.55	39.48	29.05	28.35
••••	11	44.08	42.21	39.34	39.90	27.40	28.40
	18	43.08	40.66	37.60	38.64	28.60	28.50
	25	39.57	39.56	36.53	38.33	28.45	28.25
Jul	2	39.86	40.07	37.27	38.01	27.10	27.00
· ·	9	39.86	40.07	37.27	38.01	27.10	27.00
	16	40.04	39.73	35.32	37.59	25.90	27.00
	23	39.57	39.84	36.13	37.38	25.53	26.80
	30	40.12	39.59	36.98	36.96	27.78	27.00
Aug	6	38.80	39.59	37.33	37.06	28.00	27.00
rug	13	38.45	40.00	37.60	37.80	27.85	27.00
	20	39.15	40.00	38.70	37.80	27.85	27. <b>2</b> 5
	27	39.86	40.05	40.28	38.32	27.85	27.75
Sep	3	40.56	39.84	38.46	39.48	28.38	28.00
Oup	10	40.39	39.69	41.02	39.58	28.68	29.25
	17	41.03	39.38	41.22	39.90	28.75	28.75
	24	42.61	39.38	41.22	41.26	28.90	29.60
Oct	1	41.03	38.54	41.96	41.58	29.88	30.25
OUL	8	40.15	38.96	42.29	42.00	30.33	30.35
	15	41.03	38.74	42.25	42.42	30.48	31.00
	22	40.04	39.69	42.76	42.74	30.78	31.35
	29	39.39	38.96	41.42	41.37	30.26	30.75
Nov	5	39.80	38.45	39.88	41.37	29.95	30.50
IAOA	12		38.56	40.28	40.32	28.75	30.00
	19	38.22		38.81	38.85	26.88	28.00
		36.11	37.02 36.33	38.87	37.06	26.88	2/.50
-	26	36.28	36.33 35.76				26.75
Dec	3	33.65	35.76	38.67	35.07	26.95	20,70

<sup>1</sup> Refers to No. 2 Heating Oil.
2 Refers to No. 6 Oil.
3 East Coast Cargoes.
4 New York Harbor Reseller Barge Prices.
Source: • Oil Buyers' Guide, Weekly Oil Market Product Report.
• DOE, Office of International Affairs.



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980			······································								, <del>, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	
Motor Gasoline												
Leaded Premium	114.9	123.2	127.7	129.2	129.5	130.0	130.7	131.0	130.4	130.1	129.9	131.0
Leaded Regular	108.6	115.9	120.2	121.2	121.5	121.7	121.6	121,0	119.7	118.8	118.8	119.7
Unleaded Regular	113,1	120.7	125.2	126.4	126.6	126.9	127.1	126.7	125.7	125.0	125.0	125.8
All-types	111.0	118.6	123.0	124.2	124.4	124.6	124.7	124.3	123.1	122,3	122.2	123.1
Residential Heating Oil	90,8	95.3	97.1	97.4	97.2	97.9	97.9	97.9	98.1	98.7	101.0	106.5
1981												
Motor Gasoline												
Leaded Premium	133.8	141.0	144.9	145.1	144.7	144.6	144.6	144.4	145.6	145.7	146.2	146.0
Leaded Regular	123.8	132.1	135.2	134.4	133.3	132.4	131.5	131.0	130.5	129.9	129.7	129.3
Unleaded Regular	129.8	138.2	141.7	141.2	140.0	139.1	138.2	137.6	137.6	137.1	136.9	136.5
All-types	126.9	135,3	138.8	138.1	137.0	136.2	135.3	134.8	135.8	135.3	135.1	134.8
Residential Heating Oil	114.4	123.4	125.5	123.9	122.7	120.9	121.0	119.4	119.7	118.8	120.8	122.0
1982												
Motor Gasoline												
Leaded Premium	145.6	143.8	140.7	136.8	137,9	140.8	145.0	145.8	144.1	141.3		
Leaded Regular	128.5	126.0	120,6	114.8	116.6	124.2	126.3	125.4	123.6	121.9		
Unleaded Regular	135.8	133.4	128.4	122.5	123.7	130.9	133.1	132,3	130.8	129.5		
All-types	134.1	131.8	126.8	121.0	122.4	129.6	131.8	131.0	129.5	128.0		
Residential Heating Oil	122.0	120.7	115.3	113.2	114.3	116.2	115.8		P114.8	140.0		

P-Preliminary.

Perfeitimery.

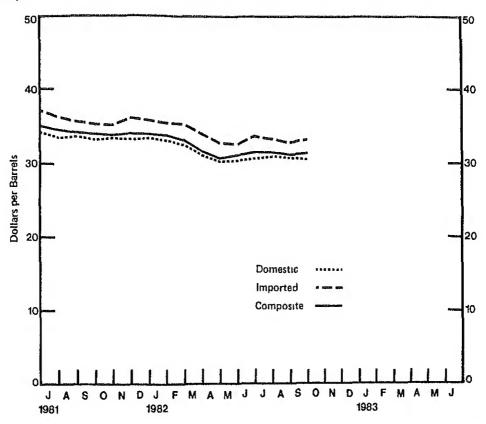
Note Motor gasoline data include prices from self service stations. Beginning with September 1981, the Bureau of Labor Statistics has changed the weights used in the calculation of severage motor gasoline prices. In the "all types" category gasohol is now included, and unleaded premium is weighted more heavily.

Source: • Motor Gasoline-Bureau of Labor Statistics. See definitions for description of survey.

• Residential Heating Oil—Through October 1980 Form EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

November 1980 Forward; Form EIA-9A, "No. 2 Distillate Price Monitoring Report."

## Refiner Acquisition Cost of Crude Oil (Dollars per Barrel)



Year/Type	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
<b>19</b> 80												
Domestic	19.78	21.22	22.07	22.89	23.63	24.48	25.05	24.98	25.37	26,21	26.51	28.55
Imported	30.75	32.40	33.42	33,54	34.33	34.48	34,51	34.44	34.46	34.63	35.09	35.63
Composite	24.81	26.11	26.88	27.09	27.85	28,80	28.73	28.70	28.96	29.56	29.79	31.39
1981												
Domestic	32,71	36.27	36.97	35.58	35.21	34,20	33.76	33.79	33,47	33.48	33.49	33.51
Imported	38.85	39.00	38,31	38.41	37.84	37.03	36,58	35.82	35.44	35.43	36,21	35.95
Composite	34.86	37.28	37.48	36.58	36.11	35.03	34.70	34.46	34.11	34.07	34,33	34.33
1982												
Domestic	33,39	32.71	31.08	30.27	30.37	30.79	30,92		P30.71			
Imported	35,54	35.48	34.07	32.82	32.78	33.79	33,44		P33.02			
Composite	33,95	33.40	31,81	30.83	31.02	31,74	31.74	31.45	P31.39			

PaPreliminary.

Source: e 1980: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."

• January 1981 Forward: Form EIA—14, "Refiners Monthly Cost Report."

## Weather Summary (Population Weighted Heating Degree-Days<sup>1</sup>)

The weather for the nation; as measured by population-weighted heating degree-days from July 1, 1982 through December 5, 1982, has been 9.0 percent warmer than normal and 9.4 percent warmer than last year.

## U.S. Total Heating Degree-Days (Population Weighted)

				Percent	Change
	1982 This year	1981–82 Last year	Normal	This year vs. Last year	This year vs. Normal
July 1 - December 5	787	869	865	-9.4	-9.0
July 1 - June 30	<del></del>	4,967	4,695		

<sup>1</sup> Hetting degree-days for a given location on a given day are the number of degrees that the mean temperature (average of daily minimum and maximum temperatures) that day a balow65°F Heating degree-days give a rough measure of the demand for heating oil.

Source • National Oceanic and Atmospheric Administration, Department of Commerce
• U.S. Census Bureau, 1981 Population Estimates.

## Appendix A: EIA Weekly Data: Survey Design and Estimation Methods

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stocks Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165). The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) and the monthly imports system. In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EiA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

#### Sample Frame

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for Imports). All sampled companies report data only for facilities in the 50 States and District of Columbia. The EIA-161 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EiA-162 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-163 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas Ilquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-164 sample frame consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil. The EIA-165 sample frame includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

#### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

	Refiners (Refineries)	Bulk Terminals	Pipelines	Crude Oil Stock Holders	Importers
Weekly Form	EIA-161	EIA-162	EIA-163	EIA-164	EIA-165
Monthly Frame Size	186(347)	173	65	296	955
Weekly Sample Size	84(215)	93	65	111	61

### **Collection Methods**

Data are collected by mall, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

#### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data. First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum, W<sub>s</sub>). Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M<sub>s</sub>). Finally, let M<sub>t</sub> be the sum of the most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies, W<sub>t</sub>, is given by:

$$W_{t} = \frac{M_{t}}{M_{s}} \cdot W_{s}$$

This procedure is used directly to estimate total weekly inputs to refinerles and production. To estimate stocks of finished products, the preceding procedure is followed separately for refinerles, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

Since M<sub>+</sub>, the total of the most recent month's data, includes companies which may not have responded weekly, the ratio method of estimation automatically imputes for nonresponse.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Appendix B: Interpretation and Derivation of Average Inventory Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

#### Average Inventory Levels

The charts displaying inventory levels of total petroleum products (p. 7), crude oil (p. 7), motor gasoline (p. 9) distillate fuel oil (p. 11), and residual fuel oil (p. 13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in March and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1975-1981. For motor gasoline, the seasonal factors were based on monthly data from 1975-1976 and 1978-1981. In 1977, monthly stock levels of motor gasoline stayed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, 1977 was not used in the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

## Values of Average Ranges in Inventory Graphs (Millions of Barrels)

	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
						Lower F	Range					
Total Petroleum Crude Oil Motor Gasoline Distillate Fuel Oil Residual Fuel Oil	1185.5 347.0 253.8 161.6 71.0	1143.1 345.5 260.1 132.0 67.9	1138.5 354 0 256.0 120.3 64.8	1149.3 358.2 245.1 121.5 66.1	1163,9 355,5 235,8 130,3 69,4	1175.9 354.4 230.9 145.0 66.7	1204.2 349.2 229.0 167.5 70.2	1219.5 344.4 227.6 187.7 70.3	1244.2 344.8 229.1 206.0 75.1	1250.6 352.7 221.1 212.5 79.1	1252.9 351.4 226.6 213.0 79.5	1209.4 341.8 237.1 191.1 77.6
						Upper R	lange					
Total Petroleum Crude Oil Motor Gasoline Distillate Fuel Oil Residual Fuel Oil	1301.2 377.8 279.7 205.5 88.5	1258.8 376.3 286.1 175.9 85.4	1254.2 384.8 282.0 164.2 82.4	1265.0 388.9 271.0 165.4 83.6	1279.6 386.2 261.8 174.2 86.9	1291.6 385.1 256.8 188.9 84.3	1319.9 379.9 255.0 211.4 87.8	1335.3 375.1 253.5 231.6 87.8	1359.9 375.5 255.0 249.9 92.6	1366.3 383.5 247.1 256.4 96.7	1368.6 382.2 252.6 256.9 97.0	1325.1 372.5 263.0 235.0 95.1

#### Minimum Operating Levels

The lines labeled "minimum operating inventory" for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil were derived by the National Petroleum Council from a 1978 survey of petroleum refineries, bulk terminal operators, and petroleum pipelines. The Council also surveyed industry experts. The findings were published in "Petroleum Storage and Transportation Capacities" in December 1979. In that document, minimum operating inventory is described as follows:

Inventory below this level is not available for consumer use because it is required to fill pipelines, tank bottoms and refinery process equipment; facilitate blending to meet the product specifications; prepare for planned maintenance periods; handle unavoidable but anticipated emergencies; and sustain uninterrupted operations. Runouts and shortages would begin to occur if inventory were to fall below this level.

The values were: crude oil - 290 million barrels; motor gasoline - 210 million barrels; distillate fuel oil - 125 million barrels; and residual fuel oil - 60 million barrels.

Since the National Petroleum Council did not derive a minimum operating inventory level for total petroleum stocks, the line labeled "observed minimum" is based on the lowest inventory level observed during the same 3-year base period that was used in minimum and the minimum operating inventory are quite close. Hence, it is thought that the observed minimum is a reasonable proxy for the minimum operating inventory.

## Appendix C: Projection of Products Supplied from the Short Term Energy Outlook

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook, August 1982 (Outlook).

Three forecast cases are presented in the <u>Outlook</u> based on differing assumptions about the world price of crude oil. In case 1, it is assumed that prices decrease to an effective OPEC marker crude price of \$28 per barrel by the end of 1982 and remain at the level in 1983. In case 2, imported crude oil prices are stable at the July 1982 level through 1982, then rise at the U.S. inflation rate in 1983. In case 3, crude oil prices rise at 2 times the U.S. rate of inflation in 1982 and 3 times the inflation rate in 1983. Macroeconomic inputs are based on a forecast from Data Resources, Inc. (DRI CONTROL 072782).

The "high demand" case is formed by adding the case 1 (low price) forecast of total demand to the square root of the sum of the squares of increases in demand resulting from the following changes in key variables. (1) a 5 percent increase in heating degree-days over the base case, (2) a 7 percent increase in cooling degree-days over the base case, (3) an increase in income over the base case that reflects average forecast errors over a 3-year period, and (4) a 5.5 percent decrease in new car efficiency from the base case in 1982 and 12.6 percent decrease from the base case level in 1983. The "low demand" case is formed by subtracting from the case 3 (high price) forecast the square root of the sum of the squared decreases in demand resulting from decreases from the base case for heating degree-days, cooling degree-days, and income; and a 9.1 percent increase from the base case new car efficiency in 1982 followed by a 17.1 percent increase from the base case in 1983.

For detailed information on the assumptions used in the forecast methodologies, please refer to the published report, Short-Term Energy Outlook, August 1982.

Copies of the report are available from:

National Energy Information Center Room 1F-048, Forrestal Building 1000 Independence Avenue, S.W. Washington, D.C. 20585 Telephone 202-252-8800

## Appendix D Changes in Reporting of Monthly Data-January 1981

In January 1981, new forms were introduced for the collection of monthly data in the Joint Petroleum Reporting System. At that time, several major changes were made in the reporting of motor gasoline, distillate fuel oil, and residual fuel oil. The reporting changes were made to describe industry operations more accurately. However, because of the changes outlined below, the monthly information shown in the WPSR for 1981 and 1982 should not be directly compared to information for prior years. The series affected by the January 1981 changes are products supplied and production of motor gasoline, distillate fuel oil, and residual fuel oil.

#### Motor Gasoline Changes

Prior to 1979, the EIA product supplied series for motor gasoline was consistently lower than the gasoline sales information collected by the Federal Highway Administration. There were two major reasons for the difference. First, refinery operations particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA prior to January 1981.

In January 1981, blending stations were added as reporters of motor gasoline production, and the reporting forms and definitions were changed to reflect more accurately the flow of products at refineries. For a further description of these changes and an indication of the magnitude of the difference between the old- and new-basis series, see Note 4 in the "Explanatory Notes" of the "Petroleum Supply Monthly."

#### Distillate and Residual Fuel Oil Changes

The monthly statistics on production and product supplied of distillate and residual fuel oil for January 1981 forward reflect actual reported data even though these fuels can be further processed after initial distillation. The figures for prior years were adjusted to reflect the renaming or reclassifying of distillate and residual fuel oils as unfinished oils. Reclassification of these fuels might occur when a refiner ships a distillate or residual fuel oil to another refinery or to a bulk storage facility and the receiving facility, intending the oils to be processed further, reports the receipt of this fuel as a receipt of unfinished oils. Before January 1981, production statistics for distillate and residual fuel oils were adjusted to compensate for this problem on the basis of the difference between reported receipts and shipments of unfinished oils. Of the difference, two-thirds was allocated to distillate and one-third to residual. This adjustment was dropped in January 1981. Instead, the production statistics and products supplied estimates now reflect the data as reported. Monthly figures for total petroleum product supplied will not be affected by the change, however, because of an adjustment for "reclassified" product now shown in the monthly balance. The adjustments made in 1980 are shown in the table below. For further information about these changes, see Note 4 of the "Explanatory Notes" in the "Petroleum Supply Monthly."

Adjusted and Unadjusted Production of Distillate and Residual Fuel Oils by Month for 1980 (Thousand Barrels per Day)

		Distillate Fuel Oll	1	Assiduat Fuel Oil				
Month	Adjusted	Unadjusted	Difference	Adjusted	Unadjusted	Difference		
January	3,013	3,093	80	1,771	1,812	41		
February	2,766	2,888	122	1,773	1,836	63		
March	2,557	2,690	133	1,584	1,652	68		
April	2,460	2,554	94	1,595	1,643	48		
May	2,474	2,610	136	1,509	1,579	70		
June -	2,646	2,721	75	1,575	1,613	38		
July	2,689	2,783	94	1,480	1,528	48		
August	2,461	2,582	121	1,444	1,506	62		
September	2,686	2,726	40	1,495	1,516	21		
October	2,589	2,650	61	1,512	1,543	31		
November	2,703	2,823	120	1,579	1,641	62		
December	2,891	3,052	161	1,660	1,743	83		
Average	2,661	2,764	103	1,580	1,634	54		

Source: EIA, "Petroleum Supply Monthly," March 1982.

## Appendix E: Calculation of World Oil Prices (page 19)

The weighted average international place of oil, shown in the "Highlights" and on page 19, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 19, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers" Guide," "Platt's Oilgram Price Report," "Petroleum Intelligence Weekly," and "Europe Oil Prices") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices

The average United States (FOB) import piece is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their oughr, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate

### **Definitions**

- Barrels throughout the report are 42-galion barrels
- Crude Oil Inputs. The total crude oil put into processing units at refineries. Crude oil inputs are a measure of the performance level of refineries and give an indication of the quantity of raw material actually being made into products such as gasoline, distillate fuel oil, and residual fuel oil.

Distillate Fuel Oils (No. 1, 2, and No. 4 fuel oils and No. 1 and No. 2 dietel fuels) are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.

EIA Weekly Data. These are preliminary figures based on data supplied to the EIA by selected petrofeum companies; published figures include estimates for other, non-sampled companies based on currently available monthly data. Weekly data indicate broad trends such as increases or decreases in demand or production.

Imports are defined in this report as gross imports Imports of crude oil do not include imports to the Strategic Petroleum Reserve Imports of minor products ("other oils"), as shown on page 15, include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, and other miscellaneous oils

Monthly Data for 1980 are from EIA, Energy Data Reports, "Petroleum Statement, Annual (Final Summary)." 1981 data are from the "Petroleum Supply Annual;" 1982 data are from the "Petroleum Supply Monthly." Information on stocks, product supplied, and production of refined products are collected from a universe of refiners, operators of bulk terminals, and pipeline operators. Companies supply monthly data after their records are finalized.

Motor Gasoline. Included are finished leaded gasoline, finished unleaded gasoline, blending components in the gasoline range, and gasohol. This definition applies for data beginning with the week of January 30, 1981. Gasohol was not included in the motor gasoline definition before that date. Motor gasoline imports do not include gasohol.

Refinery Capacity Utilization is the ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1981 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 66 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the type of products produced, and the operating conditions of the refinery.

gasoline
e Bureau
with the
pri These
preptal

nitially, and on a replacement basis, in such a way that hey represent the purchasing habits of the CPI poputation. Service stations in the current sample include hose providing all types of service (i.e., full-, mini-, nd self-service).

he refiner acquisition cost of crude oil is the average ice paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131. Imported crude oil is either that oil reported on Form ERA51, the "Transfer Pricing Report," or any crude oil which is not domestic oil. Prices do not include price of unfinished oils or SPR.

- Residual Fuel Oils. (No 5 and No 6 Fuel Oils) are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.
- Stock figures shown here are for those stocks held at refineries, in pipelines, and at bulk terminals with a capacity over 50 thousand barrels. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded. All plant stocks were included in "Other Oils" and "Total."
- o Stock Change (Refined Products). The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way: an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data, a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by: 1) computing an average daily rate of stock change for each month based on monthly data for the past six years, 2) using this daily rate and the minor stock level from the most recent monthly publication to estimate the minor product stock level for the current period.
- Product Supplied is a calculated value computed for specific products by adding domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total Products Supplied is calculated as inputs to refineries, plus estimated refinery gain, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks.
- The United States encompasses, for the purpose of this report, the 50 states and the District of Columbia.
   Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. totals.
- Unaccounted-for crude oil is a term which appears in U.S. Petroleum Balance table. It reconciles the difference between data (or estimates) about supply and data (or estimates) about use. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data on crude oil imports, production, stocks, refinery input, losses, exports, and transfers (crude oil burned directly as fuel oil). It reflects the quality of the estimates as well as the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using the final data. In fact, the published figures confirm this expectation. In the WPSR, fourweek averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous years is considerably smaller than that for the current period.